

MicroBooNE Simulations

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Hi all,

We will have our first meeting in the Comitium (WH2SE) on Friday June 13 at 2 PM Central. A remote connection will be available via Readytalk: 5649646

You can find the agenda here:

<https://indico.fnal.gov/conferenceDisplay.py?confId=8581>

I gave all the neutrino experiments 10 minutes to present their items for discussion. If I missed something or if you would like an extra presentation slot, let me know.

As a reminder of the goal of the meeting: The PDS group at Fermilab is starting two new working groups, one for GENIE and one for Geant4. The goal of these groups will be to partner with experiments and lab users to improve those software projects with the explicit goal of meeting the needs of Fermilab Intensity Frontier experiments through a collaborative effort.

We would like to hear your experiment's perspective on what the largest challenges you face using GENIE and Geant are. We will then form a group that pairs experts from the PDS with young scientists from the experiments to craft solutions and build additional expertise within the community. This will be most effective if we can all concentrate together on a limited number of topics at a time, so it is important for us to look for common ground among the needs.

pax
Gabe

To use ReadyTalk:

1. Dial Toll-Free Number: 866-740-1260 (U.S. & Canada)
2. International participants dial:
Toll Number: 303-248-0285
Or International Toll-Free Number: <http://www.readytalk.com/intl>
3. Enter your 7-digit Access Code (5649646), followed by "#"

MicroBooNE's Largest GEANT & GENIE Challenges

Geant4 Challenges

- Building and validating an optimal Geant4 physics lists for our “low energy” neutrino experiment (neutrino flux peaked at 800 MeV)
 - Understanding the Geant sub-GeV pion interaction model in LAr and the data used to constrain it
 - Summarized at March 4 “Simulations for IF experiments” meeting
 - <https://indico.fnal.gov/materialDisplay.py?contribId=1&materialId=slides&confId=8147>

GENIE Challenges

- Validating with electron scattering data
- For MicroBooNE, most important things are:
 - CCQE
 - CC- 1π
 - Inclusion of short-range correlations
 - FSI interactions for protons and pions
 - Meson exchange current (2p2h)

How do we get plugged in to...?

https://cdcv.s.fnal.gov/redmine/projects/stf/issues?page=1&per_page=50

Simulation Tools and Features

OverviewActivityIssuesGanttCalendarNewsDocumentsWikiFiles

Issues

▼ Filters

☒ Status

open ▾

Add filter

► Options

☒ Apply

✓ # ▾	Tracker	Status	Priority	Subject	Assignee	Updated
<input type="checkbox"/> 6462	Feature	Assigned	Normal	Write scripting framework for the automated validation suite.	Gabriel Perdue	06/13/2014 10:23 am
<input type="checkbox"/> 6461	Feature	Assigned	Normal	Secure hardware resources	Gabriel Perdue	06/13/2014 10:23 am
<input type="checkbox"/> 6460	Feature	Assigned	Normal	Adopt the new FNAL Build Service	Gabriel Perdue	06/13/2014 10:23 am
<input type="checkbox"/> 6459	Milestone	Assigned	Normal	Code Review for Berger Sehgal	Gabriel Perdue	06/13/2014 10:14 am
<input type="checkbox"/> 6457	Support	Assigned	Normal	HAD_RDM_010 exception	Krzysztof Genser	06/12/2014 04:44 pm
<input type="checkbox"/> 6456	Support	Assigned	Normal	Migrate Overlay procedure from MINOS "dogwood" reco to "elm" reco	Robert Hatcher	06/12/2014 01:02 pm
<input type="checkbox"/> 6428	Feature	Assigned	Normal	Non-IBD VLE reactions on Carbon	Gabriel Perdue	06/09/2014 03:24 pm
<input type="checkbox"/> 6427	Feature	Assigned	Normal	De-excitation Photons for IBD on Carbon	Gabriel Perdue	06/09/2014 03:22 pm
<input type="checkbox"/> 6426	Feature	Assigned	Normal	Check Strumia and Vissani on Carbon	Gabriel Perdue	06/09/2014 03:23 pm
<input type="checkbox"/> 6414	Feature	Assigned	Normal	Validate / Expand VLE Mode	Gabriel Perdue	06/09/2014 03:24 pm
<input type="checkbox"/> 6386	Support	Assigned	Normal	Finish up oddities in MINOS data overlays on Minerva MC	Robert Hatcher	06/12/2014 10:37 am
<input type="checkbox"/> 6384	Feature	Assigned	Normal	Suppress data "digits" that are distant in time from the Minerva MC particles	Robert Hatcher	06/12/2014 10:34 am
<input type="checkbox"/> 6383	Feature	Assigned	Normal	Add to the MINOS simulation output data sufficient to fill the	Robert Hatcher	05/30/2014 10:09 am